

### **REMARKS**

The Applicant has amended Claims 6 and 7 for clarity. Support for the amendments may be found in the specification and claims. In order to expedite prosecution only, the Applicant has amended Claims 2, 7 and 10 to include a pH range of 2-3 for the buffered electro-deposition bath. Support for the amendments may be found, for example, in paragraph 0026 on page 7 of the specification.

The Applicant has also added new Claims 12-17 to further elucidate the invention. Support for the new claims may be found, for example, in paragraph 0026 on page 7 of the specification (buffer solution) and in paragraph 0027 on page 7 of the specification (electrolytes).

1-4. The Applicant hereby affirms the election, with traverse, of Group II (Claims 2-11) for further prosecution on the merits. The Applicant does not agree with the Examiner's restriction requirement. It is not a serious burden for the Examiner to examine the eleven (11) originally-filed claims since Groups I and II are related as process of making and product made and both restricted groups are in the same class and subclass requiring only one search. It is respectfully requested that Claim 1 be rejoined when the Application is allowed. The Applicant reserves the right to present Claim 1 in a later-filed continuing application.

### **Information Disclosure Statement**

5. The Applicant wishes to thank the Examiner for making "of record" all art references cited in the Applicant's September 19, 2005, submission.

### **Claim Objections**

6. The Examiner had objected to Claim 9 as "a substantial duplicate" of Claim 5. The Applicant assumes the Examiner refers to Claims 9 and 4. The Applicant respectfully traverses. Claims 9 and 4 ultimately depend from Claims 7 and 2,

respectively, and Claims 7 and 2 are not duplicative of each other. Accordingly, the Applicant respectfully requests reconsideration and withdrawal of this objection.

7. The Examiner had objected to the term "negative-type" in Claim 10. In accordance with the Examiner's request, the Applicant has amended Claim 10 to recite "n-type" instead. Support for the amendment may be found, *inter alia*, in the originally filed claims and in paragraph 0006 on page 3 of the specification.

8. The Examiner had objected to the term "electro-deposition" in Claim 10 for alleged lack of support. To expedite prosecution only, the Applicant has amended Claim 10 to recite "chemical bath deposition" instead of "electro-deposition". However, a skilled artisan knows (and the pertinent scientific literature shows) that layers comprising CdS may be formed on a surface in a variety of ways including, but not limited to, chemical bath, electro- and physical vapor deposition methods. As the Examiner is aware, a specification need not recite that which would be apparent to a skilled artisan. Accordingly, this amendment should not be construed as a waiver of depositing layers comprising CdS via electro-deposition or any other deposition means and the Applicant reserves the right to pursue claims directed thereto.

### **Rejections Under 35 USC §103**

11. The Examiner had rejected Claims 2-9 under 35 USC 103(a) as unpatentable over U.S. Patent No. 5,730,852 to Bhattacharya et al. (hereinafter, "Bhattacharya") in view of either Yukawa or Lowenheim. In order to expedite prosecution only, the Applicant has amended Claims 2 and 7 to include a pH range of approximately 2-3 for the buffered electro-deposition bath. Support for the amendments may be found, for example, in paragraph 0026 on page 7 of the specification. It cannot be said that any of the cited references disclose or render obvious an electro-deposition bath with this pH range. While Bhattacharya is a seminal high efficiency solar cell patent, it does not disclose this specific pH range. The disclosure of Lowenheim is, as the Examiner terms it, "general". Indeed, Lowenheim provides no information specific to solar cell

manufacture and discusses electroplating baths having acidic, neutral and basic pHs. Yukawa does nothing to remedy the shortcomings of the Lowenheim reference.

12. The Examiner had rejected Claims 10 and 11 under 35 USC 103(a) as unpatentable over Bhattacharya et al. (US Patent No. 5,730,852) in view of Lowenheim, Chen et al, and Biter et al. In order to expedite prosecution only, the Applicant has amended Claim 10 to include a pH range of 2-3 for the buffered electro-deposition bath. Support for this amendment may be found, for example, in paragraph 0026 on page 7 of the specification. Lowenheim does not disclose or render obvious an electro-deposition bath with this pH range. Neither of Chen nor Biter remedies the shortcomings of Lowenheim.


13. The Examiner had rejected Claims 10 and 11 under 35 USC 103(a) as unpatentable over Bhattacharya et al. (US Patent No. 5,730,852) in view of Yukawa et al, Chen et al, and Biter et al. As discussed, the Applicant has amended Claim 10 to include a pH range of 2-3 for the buffered electro-deposition bath. Yukawa does not disclose or render obvious an electro-deposition bath with this pH range. Neither of Chen nor Biter remedies the shortcomings of Yukawa.

**CONCLUSION**

The Applicant respectfully requests reconsideration and withdrawal of all objections and rejections and that a Notice of Allowance be issued for this application. Should any issues remain, the Examiner is invited to contact the below-named attorney. The Commissioner is authorized to charge any fee which may be required in connection with this Amendment, or credit any overpayment, to deposit account No. 50-3207.

Respectfully submitted,

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